

Response to Office Action of 12/16/2003
Appl. Ser. No. 09/720,098

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A process for recovering chlorine from chlorinator waste comprising the steps of:
forming a single fluidized bed of chlorinator waste, wherein said chlorinator waste comprises a mixture of metal chlorides and carbon in a fluidizing gas containing oxygen; and
treating said chlorinator waste with oxygen in a single stage under conditions that promote conversion of said metal chlorides into metal oxides and chlorine gas, and discourage oxidation of said carbon contained in said chlorinator waste, wherein said conditions are obtained by controlling the superficial velocity of the fluidizing gas, the proportion of oxygen in the gas fed to the fluidized bed, oxygen to chlorinator waste feed ratio, temperature within the fluidized bed, either separately or in combination.
2. (cancelled)
3. (previously presented) A process according to claim 1, wherein the temperature of the fluidized bed is maintained in a range from 400 to 700° C.
4. (previously presented) A process according to claim 1, wherein the superficial velocity of the gas is maintained in a range from 0.2 to 1 meter/second.
5. (previously presented) A process according to claim 1, wherein the stoichiometric ratio, R, is maintained in a range from 0.21 to 1.2.
6. (previously presented) A process according to claim 1, wherein the temperature of the fluidized bed is maintained in a range from 550 to 650° C.
- 7.-11. (cancelled)

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12. (previously presented) A process for recovering chlorine from a mixture containing metal chlorides and carbon, the process comprising:
 forming a single fluidized bed of the mixture in a fluidizing gas containing oxygen; and
 converting the mixture in a single stage under conditions that promote conversion of metal chlorides to metal oxides and chlorine gas, and discourage oxidation of carbon,
 wherein the conditions which promote conversion of metal chlorides into metal oxides and discourage oxidation of carbon contained in the waste are obtained by controlling the superficial velocity of the fluidizing gas, the proportion of oxygen in the gas fed to the fluidized bed, oxygen to chlorinator waste feed ratio, temperature within the fluidized bed, either separately or in combination.

13. (new) A process for recovering chlorine from chlorinator waste comprising the steps of:

forming a single fluidized bed of chlorinator waste, wherein said chlorinator waste comprises a mixture of metal chlorides and carbon in a fluidizing gas containing oxygen; and
 treating said chlorinator waste with oxygen in a single stage under conditions that promote conversion of said metal chlorides into metal oxides and chlorine gas, and discourage oxidation of said carbon contained in said chlorinator waste.